

Attorney Docket No. CHEM-30134  
Application No. 10/600,810  
Amendment and Response

### Remarks

Claims 1-19 are pending in the application. Claims 1-13 have been amended. Claims 18-19, which were subject to a restriction requirement, have been canceled. New claims 20-21 have been added.

#### I. Rejections Under 35 U.S.C. §112

##### A. Rejection Under 35 U.S.C. §112, First Paragraph

The Examiner has rejected claims 1-17 under 35 U.S.C. §112, first paragraph, because, as the Examiner states, "the specification..., does not reasonably provide enablement for a foam concentrate that does not contain any foaming agent (i.e. foam forming surfactant), since by its very nature a 'foam concentrate' must contain an effective foaming agent."

Applicant would remind the Examiner that to satisfy the enablement requirement under 35 U.S.C. §112, first paragraph, all that is necessary is that one skilled in the art be able to practice the claimed invention, given the level of knowledge and skill in the art. See MPEP §2164.08. Further the scope of enablement must only bear a "reasonable correlation" to the scope of the claims. See, e.g., *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970).

Although, as discussed in the next section, the claims have been amended to delete reference to a "foam" concentrate, Applicant would point out that the specification is indeed enabling for foam concentrates and foam compositions. The claimed compositions do not exclude a foam concentrate. The claimed compositions utilize the transition "comprising," which is open ended and thus does not exclude the use of foaming agents or "surfactants." And Applicant is not required to recite the inclusion of such agents within the claim. See MPEP §2164.08, ¶5. Further, contrary to Examiner's reading of Applicant's specification, the use of foaming agents or surfactants are not excluded, and indeed, such materials are and can be used (see list of components in paragraph 0026). The specification therefore readily provides an enabling disclosure for a foam concentrate to those skilled in the art without requiring undue experimentation.

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Accordingly, Applicant submits the enablement requirement is fully met for foam concentrates and compositions.

B. Rejections Under 35 U.S.C. §112, Second Paragraph

The Examiner has rejected claims 1-17 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, with respect to claims 1-17, the Examiner contends that the claims are indefinite because the preamble of independent claims 1 and 14 are all directed toward a "foam concentrate" but the body of the "independent claims fail to require the actual presence of a foaming agent (i.e. foam forming surfactant)."

Applicant submits that the claims are definite. Applicant has amended claims 1-13 to delete references to "foam." Independent claim 1 now refers to the concentrate as a "fire fighting" concentrate. Further, contrary to Examiner's reading, claims 14-17 make no reference to "foam." Accordingly, Applicant submits the rejection of claims 1-17 on this basis is improper and must be withdrawn. As discussed above in Section IA, however, the claims are open ended and do not exclude the use of surfactants or foam forming agents and indeed are meant to encompass foam concentrates or compositions.

The Examiner has also rejected claims 1-17 under 35 U.S.C. §112, second paragraph, as being indefinite in regards to the metes and bounds as to the phrase "high molecular weight" in regards to the required acidic polymer.

The test for definiteness under 35 U.S.C. §112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." See MPEP §2173.02, citing *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Applicant would direct the Examiner to paragraph 0016 were it is fully disclosed what the metes and bounds are with respect to the phrase "high molecular weight." Where not otherwise specified, those skilled in the art would construe this under the broadest possible meaning as it is described therein. Accordingly, the rejection of claims 1-17 on this basis is improper and must be withdrawn.

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The Examiner has also rejected claims 1-13 under 35 U.S.C. §112, second paragraph, as being indefinite in regard to the limitation: "the foam concentrate providing a fire fighting composition when mixed with water so that the fire fighting composition[] does not form a stable seal on cyclohexane and meets UL 162, Class B performance criteria for at least one of AFFF agents, and fluoroprotein (FP) agents without requiring organic fluorine" as set forth in independent claim 1. The Examiner states that the

"claim limitation is by its nature indefinite because: 1) performance tests, such as 'UL 162, Class B' are subject to change, either by statutory laws or by rule changes over time. They are thus not fixed or unchangeable features of the composition itself. One having ordinary skill in the art would thus not know the metes and bounds of the claimed subject matter due to the above fact[], and 2) by definition, according to applicant['s] specification, one of the performance features of AFFF agents is the requirement that they must form a stable seal on cyclohexane and thus prevent vapor flashing and burning. As such, applicant's said claim limitation is indefinite because it has two parts to it, and they are mutually exclusive of each other on the issue of forming or not forming a stable seal on cyclohexane."

The Examiner has made similar rejections under 35 U.S.C. §112, second paragraph, of claims 14-17 with respect to the stated UL 162, Class B performance criteria.

Again, the test for definiteness under 35 U.S.C. 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." See MPEP §2173.02. Applicant would direct the Examiner to the specification where it is clearly and unambiguously set out what each of the specified UL 162, Class B performance criteria is so that those skilled in the art understand the meaning of this. Specifically, the UL 162, Class B performance tests for the AFFF and fluoroprotein (FP) agents and how the tests are carried out is fully described in paragraphs 0053-0060. The criteria for passing these tests is set forth in paragraphs 0056 and 0060, respectively. Thus, those skilled in the art would clearly understand what is being claimed with respect to the UL 162, Class B performance criteria for AFFF and FP agents. This is irregardless of whether such performance criteria changes by statute or otherwise over time. The fact that the UL 162, Class B criteria, as these are understood apart from the context of the application, may change by regulation or otherwise at a later

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date is irrelevant. The specification controls the meaning of these claimed tests, which are fully and unambiguously described therein. (See MPEP §2173.02).

Additionally, contrary to the Examiner's reading and understanding, none of the specified UL 162, Class B performance criteria discussed above (*see* paragraphs 0056 and 0060) specifies that a stable seal on cyclohexane is required. The claims specify that the "composition does not form a stable seal on cyclohexane *and* meets UL 162, Class B performance criteria. *Emphasis added.* The claimed UL 162, Class B performance criteria relate to extinguishing and burnback times. These are separate criteria from forming a stable seal on cyclohexane. Accordingly, the rejection of claims 1-17 on these bases is improper and must be withdrawn.

## II. Rejections Under 35 U.S.C. §102/§103

### A. Rejection Under 35 U.S.C. §102(b) – Chen et al. or Galleguillos et al.

The Examiner has rejected claims 1-17 as being anticipated under 35 U.S.C. §102(b) by Chen et al. (U.S. Patent No. 4,284,517) or Galleguillos et al. (U.S. Patent No. 6,361,768).

An invention is said to be "anticipated" only if each and every element set forth in the claim is found, either expressly or inherently, within a single prior art reference. *Verdegall Bros. V. Union Oil Co. of Cal.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Both Chen et al. and Galleguillos et al. fail to disclose each and every element of Applicant's claimed invention and thus fail to anticipate Applicant's claimed invention.

Chen et al. is directed toward a method of recovery of oil from an oil-containing subterranean formation. Galleguillos et al. is directed toward a hydrophilic ampholytic polymer that may be used in shampoos, conditioners and the like.

The Examiner states that the compositions disclosed in these references are deemed to anticipate Applicant's claimed compositions. With respect to Applicant's claimed properties, the Examiner states that:

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The fact that neither of the references directly state applicant's claimed limitation of: "the foam concentrate providing a fire fighting composition when mixed with water so that the fire fighting compositions does not form a stable seal on cyclohexane and meets UL 162, Class B performance criteria for at least one of AFFF agents, and fluoroprotein (FP) agents without requiring organic fluoride" as set forth in independent claim 1 is acknowledged but such is deemed moot because the compositions set forth in the specific examples of each patent are deemed to inherently meet applicant's claimed spreading limitations due to the high concentration of the high molecular weight acidic polymer in the aqueous compositions, and due to the high concentration of the high molecular weight acidic polymer in the aqueous compositions, and due to the negative to neutral spreading coefficients (SC) that such high molecular weight acidic polymer agents have in the aqueous compositions. Furthermore, th[e] fact that the references do not mention applicant's various tests is also deemed to be moot since the disclosed compositions are deemed to inherently meet one or more of these tests.

Applicant would remind the Examiner that the fact that a certain characteristic may occur or be present in the prior art is not sufficient to establish inherency of that characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993) (*emphasis added*). Mere possibilities or even probabilities are not enough to establish inherency. *See Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 20 U.S.P.Q.2d 1746 (Fed. Cir. 1991). The mere fact that that a certain thing may result from a given set of circumstances is not enough. *See In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Examiner already acknowledges that the references fail to expressly teach or suggest certain claimed properties of Applicant's invention. Filed herewith is a Declaration Under 37 C.F.R. §1.132 of Kirtland P. Clark, PhD (hereinafter "Declaration"), the sole inventor of the claimed subject matter of the application and an expert in the area of surfactants and their use in chemical fire retardants. As set forth in Dr. Clark's declaration at paragraph 8, contrary to the Examiner's statement, the claimed properties with respect to UL 162, Class B performance cannot be deemed to be inherent within the compositions of the cited references, as those skilled in the art would not recognize them as being present.

Accordingly, Chen et al. and Galleguillos et al. fail to disclose each and every element of Applicant's claimed invention and thus fail to anticipate Applicant's claimed

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invention. The rejections upon this basis are therefore improper and should be withdrawn.

B. Rejection Under 35 U.S.C. §102(b) – “Good Chemistry” Webpage

The Examiner has rejected claims 1-5 and 7-17 as being anticipated under 35 U.S.C. §102(b) by the publication entitled “Good Chemistry has never been so bad for fire!”, found at [www.chemguard.com/home/corporate\\_body\\_foam\\_story.html](http://www.chemguard.com/home/corporate_body_foam_story.html), which is cited as directly teaching an aqueous concentrate comprising the CHEMGUARD HS-100 product.

The Examiner asserts that the CHEMGUARD HS-100 is deemed to anticipate Applicant’s claimed composition prior to its addition to AFFF agents.

An invention is said to be “anticipated” only if each and every element set forth in the claim is found, either expressly or inherently, within a single prior art reference. *Verdegall Bros. V. Union Oil Co. of Cal.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

Even if the cited webpage was to constitute valid prior art (*see* Declaration, ¶9), the CHEMGUARD HS-100 product fails to meet each and every element of Applicant’s claimed invention and thus fails to anticipate Applicant’s claimed invention. This is discussed in Dr. Clark’s declaration at paragraph 10.

Accordingly, the rejections of claims 1-5 and 7-17 on this basis is improper and must be withdrawn.

C. Rejections Under 35 U.S.C. 103(a)

The Examiner has also rejected claims 1-17 as being obvious under 35 U.S.C. §103(a), based upon the primary references Chiesa, Jr. (U.S. Patent No. 4,060,489), Chiesa, Jr. (U.S. Patent No. 4,387,032), Chiesa, Jr., et al. (U.S. Patent No. 4,464,267), Jackovitz et al. (U.S. Patent No. 3,422,011), Tsuji (U.S. Patent No. 4,306,979), Ferguson et al. (U.S. Patent No. 3,457,172) or Kroke et al. (U.S. Patent No. 3,579,466), all individually in combination with the secondary reference entitled “Good Chemistry has never been so bad for fire!”, that was listed as being found at [www.chemguard.com/home/corporate\\_body\\_foam\\_story.html](http://www.chemguard.com/home/corporate_body_foam_story.html).

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In rejecting Applicant's claims, the Examiner states the following:

It would have been obvious to one having ordinary skill in the art to use the disclosure of the secondary reference to the advantages of adding high molecular weight acidic polymers (e.g. CHEMGUARD HS-100) to AFFF and/or AR-AFFF foam concentrates as motivation to actually had [*sic*] them to the fluorosurfactant free foam concentrates as taught by and disclosed by anyone of the primary references. The fact that none of the applied primary references or secondary reference directly state applicant's claimed limitation of: "the foam concentrate providing a fire fighting composition when mixed with water so that the fire fighting composition does not form a stable seal on cyclohexane and meets UL 162, Class B performance criteria for at least one of AFFF agents, and fluoroprotein (FP) agents without requiring organic fluorine" as set forth in independent claim 1 is acknowledged but such is deemed to be moot. Applicant's invention is deemed to be obvious over the above combinations of the primary references and secondary reference because it is well known in the art that foam concentrates that do no[t] contain fluorosurfactants will most frequently not form stable seals on cyclohexane. This is one of the main reasons why so many foam concentrates actually do include fluorosurfactants so that they will form stable seals on cyclohexane. Furthermore, the fact that the references do not mention applicant's various tests is deemed moot since the disclosed foam concentrates are deemed to inherently meet one or more of these tests when used according to the disclosed process.

In order to establish a *prima facie* case of obviousness, the prior art references must teach or suggest all of the claim limitations when combined. See *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974); and MPEP 2143.03. The Examiner already acknowledges that the combination of references fail to expressly teach or suggest all the properties of Applicant's claimed fire fighting compositions.

As discussed earlier, the fact that a certain characteristic *may* occur or be present in the prior art is not sufficient to establish inherency of that characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993) (*emphasis added*). Mere possibilities or even probabilities are not enough to establish inherency. See *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 20 U.S.P.Q.2d 1746 (Fed. Cir. 1991). The mere fact that that a certain thing may result from a given set of circumstances is not enough. See *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

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As set forth in Dr. Clark's declaration at paragraph 11, contrary to the Examiner's statement, the claimed properties with respect to UL 162, Class B performance cannot be deemed to be inherent within the compositions of the cited references, as those skilled in the art would not be recognize them as being present.

Accordingly, the rejections of claims 1-17 on this basis is improper and must be withdrawn.

### III. Conclusion

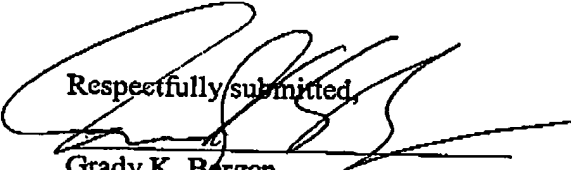
In view of all of the reasons presented above, Applicant submits that the application is in a condition for allowance. Favorable action is therefore respectfully requested.

This response is being submitted within four months from the date of the office action. Applicant hereby requests a one-month extension of time to file this response. The fee in the amount of \$60.00 required under 37 C.F.R. §1.17(a)(1) is enclosed. If any further extension of time is believed necessary, however, such extension is hereby requested. If any additional fees are deemed necessary for the continued prosecution of the present application, the Commissioner is hereby authorized to charge them to Deposit Account No. 50-1899.

Please contact the undersigned at the address or telephone number listed below should there be any questions, or if contacting the undersigned would expedite or aid the examination or prosecution of this application.

Date: June 28, 2005

Respectfully submitted,

  
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